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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Brian Eric Bakke

IBM / 178

5139

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EXAMINER

MANOSKEY, JOSEPH D

ART UNIT

PAPER NUMBER

2113

MAIL DATE

DELIVERY MODE

08/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/932,140	BAKKE ET AL.	
	Examiner	Art Unit	
	Joseph D. Manoskey	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 12 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Concerning Appeal Brief

1. Concerning the Appeal Brief filed 01 March 2007, Applicant's arguments were found to be persuasive by the Examiner, therefore the finality of the last Office Action is withdrawn and a new non-final rejection is made based on further consideration.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8, 12-21 and 25-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Erickson et al., U.S. Patent 6,408,343, hereinafter referred to as "Erickson".

4. Referring to claim 1, Erickson teaches multiple adapters connected to disk drives, this is interpreted as an apparatus comprising a plurality of access adapters,

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each adapter configured to interface with an electronic resource (See Fig. 6, Col. 4, lines 25-39, Col. 5, lines 54-67 and Col. 8, lines 42-48). Erickson discloses a master adapter failing over to a redundant adapter, where the adapters are hot-swappable and connect to external hosts, this is interpreted as at least one shareable spare adapter configured to function as a network interface that removably couples with the electronic resource (See Fig. 6, Col. 4, lines 32-35, and Col. 5, lines 10-12). Erickson teaches the adapters automatically self configure and failover to redundant adapters. The adapters contain a SCSI enclosure processor, SEP, which detects the failures, this is interpreted as control circuitry configured to initiate a substitution of the shareable spare adapter for any of the plurality of access adapters to supplant a substituted access adapter without intervention by any server in electronic communication with the electronic resources (See Fig. 6, Col. 2, lines 63-65, Col. 4, lines 32-36, and Col. 6, lines 39-53).

5. Referring to claim 2, Erickson teaches the SEP begins the failover when a failure is detected, this is interpreted as wherein the control circuitry initiates the substitution in response to an event (See Fig. 8, and Col. 6, lines 38-53).

6. Referring to claim 3, Erickson discloses the SEP detection mechanisms maintaining periodic communication, this is interpreted as wherein the control circuitry initiates monitoring of the event (See Fig. 8 and 9, and Col. 6, lines 62-64).

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7. Referring to claim 4, Erickson teaches the SEP of the redundant adapter becoming active because of the failure of the master adapter, this is interpreted as wherein the control circuitry initiates notification procedures regarding the event (See Fig. 8 and 9, Col. 6, lines 57-60).

8. Referring to claim 5, Erickson discloses the SEP detection mechanisms maintaining periodic communication such as a ping, this is interpreted as wherein the event includes a change in a heartbeat signal transmitted by an access adapter (See Fig. 6 and Col. 6, lines 62-65).

9. Referring to claim 6, Erickson discloses the SEP detection mechanisms maintaining periodic communication such as a ping, this is interpreted as wherein the control circuitry initiates monitoring a process that monitors the event (See Fig. 6 and Col. 6, lines 62-65).

10. Referring to claim 7, Erickson teaches the adapters having ports that connect to half of the disk drives, this interpreted as wherein a port of an access adapter of the plurality of access adapters interfaces with only a subset of the electronic resource (See Fig. 6).

11. Referring to claim 8, Erickson teaches the insertion of an adapter causing a configuration and setting the SEP in standby mode, this is interpreted as wherein the

control circuitry initiates a reconfiguration of an access adapter into a second shareable spare adapter (See Col. 8, lines 9-13).

12. Referring to claim 12, Erickson discloses the failover of a master adapter to a redundant adapter and the adapters being hot-swappable, this is interpreted as wherein the control circuitry initiates a replacement of an access adapter (See Col. 4, lines 32-36).

13. Referring to claim 13, Erickson teaches the insertion of an adapter causing a configuration and setting the SEP in standby mode, this is interpreted as wherein the control circuitry initiates a disablement of the shareable spare adapter (See Col. 8, lines 9-13).

14. Referring to claim 14, Erickson discloses the master adapter failing over to a secondary adapter, this is interpreted as wherein the control circuitry initiates disabling an access adapter (See Col. 4, lines 32-36).

15. Referring to claim 15, Erickson teaches multiple adapters connected to disk drives, this is interpreted as a method of providing access to a computer resource, wherein a plurality of access adapters each interface with the computer resource (See Fig. 6, Col. 4, lines 25-39, Col. 5, lines 54-67 and Col. 8, lines 42-48). Erickson discloses a master adapter failing over to a redundant adapter, where the adapters are

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hot-swappable and connect to external hosts, this is interpreted as the method comprising using a shareable spare adapter configured to function as a network interface that removably couples with the computer resource and to supplant an interface provided by a first adapter of the plurality of access adapters (See Fig. 6, Col. 4, lines 32-35, and Col. 5, lines 10-12). Erickson teaches the adapters automatically self configure and failover to redundant adapters. The adapters contain a SCSI enclosure processor, SEP, which detects the failures and the including a plurality of access adapters, this is interpreted wherein the shareable spare adapter is additionally configured to supplant a second interface provided by a second access adapter of the plurality of access adapters without intervention by any server in electronic communication with the computer resource (See Fig. 6, Col. 2, lines 63-65, Col. 4, lines 32-36, Col. 6, lines 39-53 and Col. 8, lines 42-48).

16. Referring to claim 16, Erickson teaches include a plurality of access adapters, this is interpreted as wherein the shareable spare adapter is additionally configured to supplant a third interface provided by any of the plurality of access adapters (See Col. 8, lines 42-48).

17. Referring to claim 17, Erickson teaches the SEP begins the failover when a failure is detected, this is interpreted as further comprising supplanting the interface in response to an event (See Fig. 8, and Col. 6, lines 38-53).

18. Referring to claim 18, Erickson discloses the SEP detection mechanisms maintaining periodic communication, this is interpreted as further comprising monitoring of the event (See Fig. 8 and 9, and Col. 6, lines 62-64).

19. Referring to claim 19, Erickson teaches the SEP of the redundant adapter becoming active because of the failure of the master adapter, this is interpreted as further comprising initiating notification procedures regarding the event (See Fig. 8 and 9, Col. 6, lines 57-60).

20. Referring to claim 20, Erickson discloses the SEP detection mechanisms maintaining periodic communication such as a ping, this is interpreted as further comprising monitoring a process that monitors the event (See Fig. 6 and Col. 6, lines 62-65).

21. Referring to claim 21, Erickson teaches the insertion of an adapter causing a configuration and setting the SEP in standby mode, this is interpreted as further comprising reconfiguring the first access adapter into a second shareable spare adapter (See Col. 8, lines 9-13).

22. Referring to claim 25, Erickson discloses the failover of a master adapter to a redundant adapter and the adapters being hot-swappable, this is interpreted as further comprising replacing the second access adapter (See Col. 4, lines 32-36).

23. Referring to claim 26, Erickson teaches the insertion of an adapter causing a configuration and setting the SEP in standby mode, this is interpreted as further comprising disabling the shareable spare adapter (See Col. 8, lines 9-13).

24. Referring to claim 27, Erickson discloses the master adapter failing over to a secondary adapter, this is interpreted as further comprising disabling the second access adapter (See Col. 4, lines 32-36).

25. Referring to claim 28, Erickson teaches the adapters having ports that connect to half of the disk drives, this interpreted as wherein each of the first and second adapters access a different subset of the computer resource (See Fig. 6).

26. Referring to claim 29, Erickson teaches multiple adapters connected to disk drives, this is interpreted as a program product comprising a program for providing access to a computer resource, wherein a plurality of access adapters each interface with the computer resource (See Fig. 6, Col. 4, lines 25-39, Col. 5, lines 54-67 and Col. 8, lines 42-48). Erickson discloses a master adapter failing over to a redundant adapter, where the adapters are hot-swappable and connect to external hosts, this is interpreted as the program configured to use a shareable spare adapter configured to function as a network interface that removably couples with the computer resource and to supplant an interface provided by a first adapter of the plurality of access adapters

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(See Fig. 6, Col. 4, lines 32-35, and Col. 5, lines 10-12). Erickson teaches the adapters automatically self configure and failover to redundant adapters. The adapters contain a SCSI enclosure processor, SEP, which detects the failures and the including a plurality of access adapters, this is interpreted wherein the shareable spare adapter is additionally configured to supplant a second interface provided by a second access adapter of the plurality of access adapters without intervention by any server in electronic communication with the computer resource; and a computer-readable signal bearing recordable media bearing the program (See Fig. 6, Col. 2, lines 63-65, Col. 4, lines 32-36, Col. 6, lines 39-53 and Col. 8, lines 42-48).

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. Claims 9-11 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson in view of Conseil, U.S. Patent 5,964,887.

29. Referring to claims 9 and 22, Erickson teaches all the limitations (See rejection of claims 1 and 15 respectively) except for removal of a correlation token from the access adapter, however Erickson does failover of the adapters using a state transition

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diagram, where one state is standby and another is active (See Fig. 9, and Col. 6, lines 54-61). Conseil teaches a system where a failed active station is switched over to a back-up station (See Col. 1, lines 15-18). Conseil discloses this being done with an identifier or "token", which includes an absent state, thus the token being removed (See Col. 1, lines 46-61). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the token passing of Conseil with the failover of adapters of Erickson. This would be obvious to one of ordinary skill in the art at the time of the invention to do because provides transparent manner of switch to a back-up (See Conseil, Col. 1, lines 26-30).

30. Referring to claims 10 and 23, Erickson and Conseil teach all the limitations (See rejection of claims 9 and 22 respectively) including passing the token to the spare or back-up adapter. Conseil teaches using the token to pass the identity to the back-up, this is interpreted as passing the token to the spare adapter (See Col. 1, lines 15-17 and 46-49).

31. Referring to claims 11 and 24, Erickson and Conseil teach all the limitations (See rejection of claims 9 and 22 respectively) including the evaluation of the correlation token. Conseil discloses a station becoming operational if it is determined if the token is present, this is interpreted as evaluating the token (See Col. 1, lines 65-67).

Response to Arguments

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32. Applicant's arguments, see pages 8-15 of appeal, filed 01 March 2007, with respect to the rejection(s) of claim(s) 1-8, 12-21 and 25-29 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Erickson, see above rejections.

33. Applicant's arguments, see pages 15-17 of appeal, filed 01 March 2007, with respect to claims 9-11 and 22-24 have been fully considered but they are not persuasive. Applicant argues that Conseil does not teach the removal of the token. The Examiner respectfully disagrees. Conseil discloses this being done with an identifier or "token", which includes an absent state, thus the token being removed (See Col. 1, lines 46-61).

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are closely related adapter systems

U.S. Patent 6,314,525 to Mahalingham et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Manoskey whose telephone number is (571) 272-3648. The examiner can normally be reached on Mon.-Fri. (7:30am to 4pm).


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JDM

August 4, 2007


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